

Date: Tuesday, 16/12/2008 2:12:07 PM
 User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BEARPAW KIT (23"X19")
Job Number	: 44120		
Estimate Number	: 12619		
P.O. Number	:	Part Number	: D105645011
This Issue	: 16/12/2008	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: D2421 REV F2
First Issue	: / /	Project Number	: N/A
Previous Run	: 43827	Drawing Revision	: F2
	Type	Material	:
	: MACHINED PARTS	Due Date	: 30/12/2008
Written By	:	Qty:	2 Um: Each
Checked & Approved By	: <u>JLD 08.12.16</u>		
Comment	: Est Rev:A New Issue 07-01-03 JLM Est Rev:B New Manufacturing Method 08-11-04 Verified By:EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Ag for JLD 08/12/23

**Comment:** DOCUMENT CONTROL

(1) D105-645-011 Kit consists of Qty (2) D2421

Photocopy bluefile and create labels per PPP D105-645-011 CHG003

Sordolab

2.0	MFG ENGINEERING	MFG ENGINEERING
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**Comment:** MFG ENGINEERING

Program Batch Number

9-01-20

3.0	MUHMWB10	UHMW 1" Black
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**Comment:** Qty.: 6.8404 sf(s)/Unit Total : 13.6809 sf(s)

Cut 2 blanks per (1) K10010 Kit

Cut blank: 19.50" x 23.50" x 1.00" thick (+0.030/-0.000) per DSK086-4

Material: Black UHMW 1"

(MUHMWB10)

Batch: *110520*

AB 9-1-20

(4)

4.0	WATER JET	FLOW WATER JET
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AB 9-1-20

Comment: FLOW WATER JET

Cut Blank as per file D2421_BLANK

5.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1

Note:(2) bearpaws for (1) Kit

JL 09/01/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 16/12/2008 2:12:07 PM
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Drawing Name: BEARPAW KIT (23"X19")

Job Number: 44120

Part Number: D105645011

Job Number:



Seq. #: Machine Or Operation: Description :

1-Inspect material for defects or damage prior to machining

2-Machine as per Folio FA124 and Dwg D2421
Identify as D2421

3-Deburr

6.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

IL 09/01/24

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SP 09/01/26

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

9.0

D2182B060

Clamp Cushion



Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
4 D2182B060 Rubber Cushion

42737

SS 09/01/26 (x2)

10.0

D2274

Radius Block



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
8 D2274 Radius Block

42099

SS 09/01/26 (x2)

11.0

D2519

Clamp



Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

Clamp

Pick: Packing Kit

(Note: D2421 is on the BOM as material from step 3)

Qty Part Number Description Batch
4 D2519 Clamp

43842

SS 09/01/26 (x2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 16/12/2008 2:12:07 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARPAW KIT (23"X19")

Job Number: 44120

Part Number: D105645011

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

D2529

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 D2529

Washer

42408

SS

09/01/26 (x2)

13.0

AN415A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-15A

Bolt

M109148

SS

09/01/26 (x2)

14.0

AN960JD416

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN960JD416

Washer

M109249

SS

09/01/26 (x2)

15.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4

Nut (or -4)

M109282

SS

09/01/26 (x2)

16.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

SS 09/01/26 (x2)

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPR D105-645-011

Location:

Rev A

SS

09/01/27 (x2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 16/12/2008 2:12:07 PM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARPAW KIT (23"X19")

Job Number: 44120

Part Number: D105645011

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

QC21

FINAL INSPECTION/W/O RELEASE



09/01/28 *[Signature]*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U 07-06-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: <u>L4420</u>
Description: Bearpaw		Part Number: D2421
Inspection Dwg: D2421	Rev: F2	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST




☒ First Article
 ☐ Prototype

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.20	+/-0.030	.205	✓			
B	0.95	+/-0.030	.951	✓			
C	0.45	+/-0.010	.449	✓			
D	0.07 x 45°	+0.030/-0.010	.065x45°	✓			
E	0.69	+/-0.030	.686	✓			
F	0.38	+/-0.010	.370	✓			
G	0.44 - 0.47	+/-0.000	.450	✓			
H	R0.25	+/-0.030	R.250	✓			
I	0.19 x 45°	+/-0.030	.200x45°	✓			
J	23.00	+/-0.030	23.00	✓			
K	Ø0.260	+0.005/-0.000	.260	✓			
L	Ø0.93	+/-0.030	.925	✓			
M	0.30	+/-0.030	.308	✓			
N	4.50	+/-0.030	4.515	✓			
O	9.50	+/-0.030	9.50	✓			
P	1.00	+/-0.030	1.000	✓			
Q	14.750	+/-0.010	14.750	✓			
R	0.38	+/-0.030	.378	✓			
S	4.54	+/-0.010	4.540	✓			
T	19.00	+/-0.030	19.00	✓			

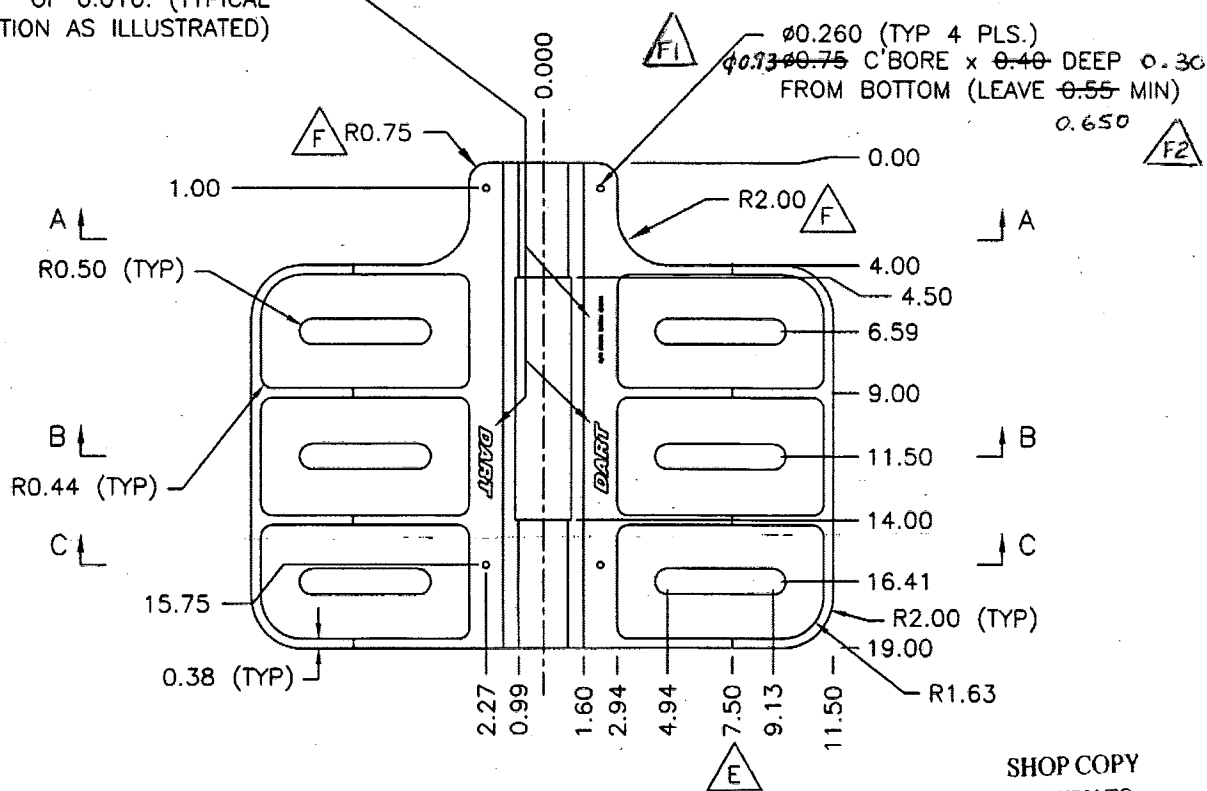
Measured by: <u>JL</u>	Audited by: <u>SP</u>	Prototype Approval: N/A
Date: <u>09/01/24</u>	Date: <u>09/01/20</u>	Date: N/A

Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue P/O K10010	KJ/RF	
B	04.11.29	Revised dimension M	KJ/JLM	<i>[Signature]</i>



DESIGN 		DRAWN BY 		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED RF		APPROVED 		DRAWING NO. D2421 REV. F SHEET 1 OF 2	
DATE 01.03.12		TITLE BEARPAW		SCALE 1:7	
A	95.04.24	NEW ISSUE			
B	95.11.28	CHANGED NUMBER OF HOLES			
C	97.06.19	ADDED MATERIAL SPECIFICATION			
D	98.08.11	DIM MODIFICATIONS			
E	00.03.01	R1.77 WAS R2.66; ADD R1.85 BORE RELIEF FOR CLAMPS; ADDED DEO 9155			
F	01.03.12	MODIFY FWD END			
F1	03.01.13	Ø 0.93 WAS Ø 0.75; R0.19 WAS R0.38; Ø 0.19 WAS 0.25			
F2	04.11.03	0.30 WAS 0.40 : 0.650 WAS 0.55			

ENGRAVE DART LOGO TO
MAX DEPTH OF 0.012.
ENGRAVE PART AND BATCH
NUMBERS TO MAX DEPTH
OF 0.010. (TYPICAL
LOCATION AS ILLUSTRATED)



SYMMETRIC ABOUT CENTER LINE

MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689,
1.00" THICK (MACHINE TO 0.950)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 44020

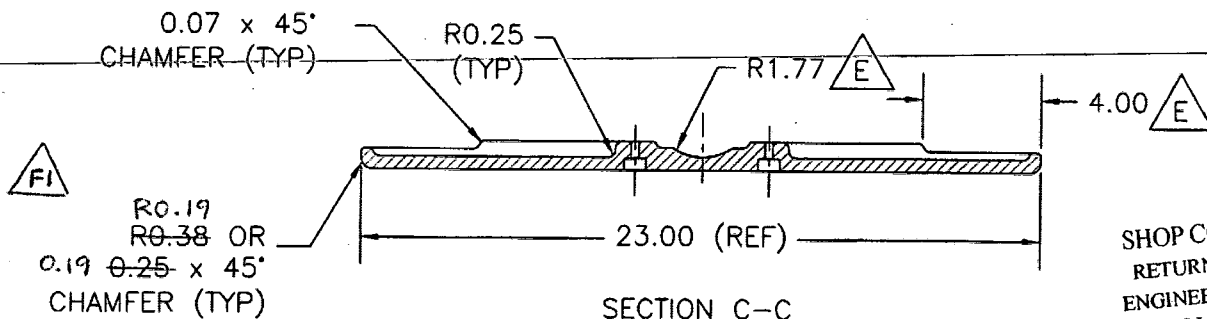
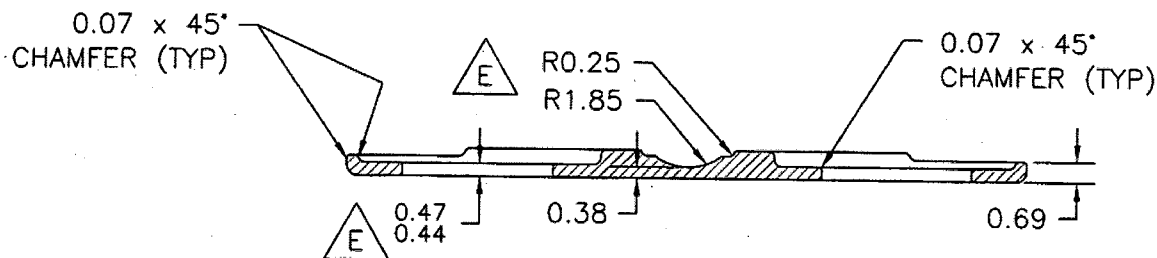
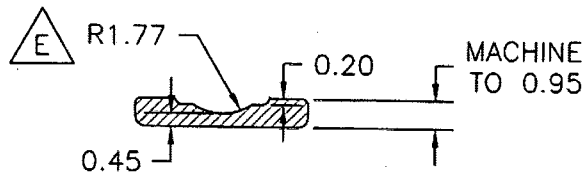
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DART

DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED RF	APPROVED #	DRAWING NO. D2421	REV. F SHEET 2 OF 2
DATE 01.03.12		TITLE BEARPAW	SCALE 1:6

RELEASED
01.03.14 #



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WITHOUT NOTICE
WORK ORDER
NO. 44120

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